

Wisconsin Urban & Community Forests

A Quarterly Newsletter of the Wisconsin Department of Natural Resources, Forestry Division

Rain Gardens: **Keeping Water on the Land** **and Out of the Sewer**

by Marsha Vomastic, Stormwater Assistant
DNR Water Division

Introduction. Water quality and storm water management are becoming hot topics in many communities. Awareness of runoff management methods is increasing. People are beginning to make the connection between water quality/storm water runoff and the mitigating benefit of community trees and other plants. This article describes basic water quality issues and also introduces a growing trend being implemented by both volunteers and professionals: rain gardens.

— Kristina Skowronski, Urban Forestry Assistant, DNR Southeast Region.

In most urban environments, rain falls on roofs, roads and parking lots—areas where it can't soak in. Gradually these impervious surfaces cause problems. As our urban areas increase, so do the problems.

In a parking lot, water moves quickly off paved areas into storm drains, carrying a smorgasbord of leaves, grass, soil, oils and fertilizer, all of which end up in our lakes and streams. Houses are designed to get rid of water as quickly as possible. Builders and developers use the principle of collecting water, concentrating the flow and conveying it quickly off the property. While this protects the home, it ends up sending the problem downstream. The urban runoff, along with runoff from rural sources, can cause major water quality problems.

The traditional solution has been to build detention ponds to collect the water and send it downstream more slowly. But this engineered practice is expensive, frequently looks ugly and can become full of algae if not properly maintained.

Here's an alternative solution that's elegant in its simplicity: a shallow basin full of native plants where rainwater can soak into the ground, replenishing groundwater and protecting surface water—a rain garden! Rain gardens help protect and restore natural



A rain garden in full bloom.

hydrology, allowing rainwater to soak in instead of running off. They also help trap pollutants that might be in the runoff.

Rain gardens aren't only for city folks. A rain garden can be placed between two sheds on a farm. They can be used anywhere the amount of water running across the ground is a problem.

There are other benefits to rain gardens. The native plants attract birds and butterflies. They are attractive additions to property, enhancing the beauty of the neighborhood, not only in summer but in winter too. Songbirds appreciate the winter seed heads as a food source.

continued on page 7



Is China next? There was no stopping Jake Roe, then 2 1/2, when he started to dig an Arbor Day tree hole. Jake is the son of Jeff Roe, DNR urban forester for the South Central Region. Watch for our Arbor Day collage in the next issue of Wisconsin Urban & Community Forests.



Volume 13
Number 1

Spring
2005



Inside this issue:

<i>Community Profile:</i>	
<i>Fond du Lac</i>	2
<i>Project Profile: Cities</i>	
<i>Team up for Arbor-</i>	
<i>Master Training ...</i>	3
<i>UF Council</i>	
<i>Awards</i>	4
<i>The Green Industry</i>	
<i>Lobbies</i>	
<i>Legislators</i>	5
<i>Tree Profile: Fringe</i>	
<i>Tree (Chionanthus</i>	
<i>virginicus)</i>	6
<i>What Damaged This</i>	
<i>Tree?</i>	7
<i>Coming Events</i>	8
<i>Urban Forest Insect</i>	
<i>Pests:</i>	
<i>Linden Borer</i>	9
<i>Urban Wildlife: Take</i>	
<i>the Ricky Quiz! ...</i>	10
<i>Organization Profile:</i>	
<i>Trees for</i>	
<i>Tomorrow</i>	11
<i>Idea Exchange</i>	13
<i>Research Notes</i>	13
<i>Council News</i>	14
<i>UF Resources:</i>	
<i>Learn More about</i>	
<i>Rain Gardens</i>	15
<i>DNR UF Contacts ...</i>	16

Photo by Jeff Roe, WDNR

2



Community Profile:

Tree City USA: 17 years

Growth Award: 10 years

Population: 42,203

Street Tree
Population: est. 25,000

Miles of Streets: 200

Number of Parks: 14

Cultivated Parkland: 400 acres

Undeveloped
Parkland: 300 acres

Program Profile:

Staff:

Park and Forestry
Superintendent John Kiefer

City Arborist Brian Weed

1 arborist technician

1 park caretaker

1 long-term seasonal

2 summer seasonals

Advisory Body: Park Board

Heavy Equipment:

40-ft. boom truck

1 chipper and truck

2 pickup trucks

water trailer

2004 budget:

\$242,164

Community Profile:

City of Fond du Lac

by Brian Weed

City Arborist

Fond du Lac, located at the southern tip of Lake Winnebago, means "Bottom of the Lake" and was once home to the Winnebago Indians. Settlers arrived in the 1830s and Fond du Lac became an incorporated village with a population of 3000 by 1847. Today Fond du Lac is a thriving community of over 42,000 with many industries and attractions. One of the main attractions is Lakeside Park, located on the shore of Lake Winnebago. It is a 145-acre park with many trees, flowerbeds, picnic shelters, baseball diamonds and a lighthouse. Lakeside Park is considered the "Jewel of the City" and is very popular with area residents.

Like many Wisconsin communities, Fond du Lac lost thousands of American elms to Dutch elm disease. The issues associated with losing and replanting so many trees helped create the city's first arborist position, a forestry budget and a planting program. Today, forestry activities include planting, pruning, maintenance and removal of city-owned trees along street terraces and in the park system. The forestry division performs an annual visual evaluation to determine which trees to prune or remove. Trees with highest risk to public safety are removed. Trees with deadwood two inches or larger in diameter, and branches which are endangering street and pedestrian traffic are pruned to a standard height. The forestry division also prunes trees four and eight years after planting to achieve a central leader and good branch structure.



Photo by Tracy Salisbury

The lighthouse at Lakeside Park, Fond du Lac.

Most planting, large-tree pruning and removals are performed through contractual services and supervised through the forestry division. Plantings are included in new subdivisions and during street reconstruction, and the city also works in partnership with area garden clubs and high school students in planting and maintaining trees, shrubs and flowers in the park system. In 2003, the Johnson Street (Highway 23) state transportation project was completed, and 1500 new trees, shrubs and perennials helped to complete the beautification of this main east-west corridor.

In older parts of the city, trees are replanted in a cost share program with residents. The residents may plant the tree themselves or they can have the city plant it. The forestry division has the final determination as to what trees may be planted on city property.

continued on page 3



Published quarterly by the Wisconsin Department of Natural Resources, Forestry Division.

Send your inquiries, address changes, or story ideas to Dick Rideout, richard.rideout@dnr.state.wi.us (608/267-0843) or Katherine Esposito, katherine.esposito@dnr.state.wi.us (608/267-0568)

Editors: Dick Rideout and Katherine Esposito

Contributors: Cindy Casey, Don Kissinger, Jeff Roe, Tracy Salisbury, Kim Sebastian, Kristina Skowronski and Olivia Witthun.

Articles, news items, photos and ideas are welcome.

Unless noted, material in this newsletter is not copyrighted. Reproduction for educational purposes is encouraged. Subscriptions are free.

This newsletter is available in alternative format upon request and can also be downloaded in PDF format from our Web site: <http://dnr.wi.gov/org/land/forestry/UF/>

For breaking UF news, anecdotes, announcements and networking opportunities, sign up for The Urban Forestry Insider, DNR's twice-monthly e-newsletter. Archives are at <http://dnr.wi.gov/org/land/forestry/UF/resources/InsiderArchive.html>

The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of the Interior, Washington DC 20240

This newsletter is made possible in part by a grant from the United States Department of Agriculture Forest Service. The USDA prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. To file a complaint call (202) 720-5964.



Project Profile:

Partnering for ArborMaster Training in Northeast Wisconsin

by Mike Michlig

Appleton City Forester & Wisconsin Urban Forestry Council Member

Arboricultural techniques are constantly evolving and the best way keep current is through continuing education. ArborMaster Training, Inc. of New England is a company that provides high-quality training for the tree care industry. This type of hands-on training is expensive and requires a minimum class size of ten students. Most municipal forestry programs have a small number of staff, usually less than the ten required for a class, or the training is just too expensive for a single municipality to cover.

Members of the Northeast Wisconsin Urban Forestry Work Group (NEWUFWG) collectively recognized the need for quality training in work safety and modern tree removal techniques. NEWUFWG members proposed that combining municipal staff into one class and holding the training at a central location was the most economical way to provide this training to staff.

Members of the NEWUFWG worked together to secure a DNR Urban Forestry grant to provide ArborMaster training to staff. The grant project consisted of two separate two-day sessions held at a central location, which allowed participants from each community to travel to and from training each day. Arborists from Appleton, Ashwaubenon, Howard, Marinette, Neenah and Oshkosh participated in four days of hands-on ArborMaster training.

The first two days included Precision Felling and Chain Saw Safety and Maintenance. The arborists learned the importance of physical fitness, personal

protective equipment and clear communication as part of the preparation to start work. Chain saw safety and maintenance were covered in detail to help ensure operator safety and saw performance. Cutting methods and proper tree felling procedures concluded that training session.

Days three and four included Aerial Lifts—Arborist Rigging Applications. This session expanded some of the concepts taught in the first two days and introduced several rigging concepts. The importance of having a work plan was stressed. The concept of HOPE—Hazards, Obstacles, Plan and Equipment—was introduced and practiced by the arborists. Dynamics in rigging, including working loads, safety factors and measurement of forces, were observed and practiced by the participants. Rigging hardware was demonstrated for a variety of uses and situations. The proper application of various knots, ropes, hardware and techniques was stressed and applied by the arborists.

The arborists that took part in this training were able to observe the use and instruction of each arboricultural technique in a controlled environment. Participants then had the opportunity to try each of the techniques, with instructors assisting as needed. Even the most experienced arborist learned new techniques and tricks of the trade to make their jobs easier and safer.

By coming together with a joint DNR Urban Forestry grant, everyone involved was able to enjoy a high-quality training opportunity that would have been difficult or impossible to do on their own. ✿

3



Photo by Mike Stanonik

City of Fond du Lac

continued from page 2

Fond du Lac Forestry Division is involved with numerous tree projects in addition to daily forestry activities. The most recent project involves a street tree inventory funded by a DNR Urban Forestry grant. Diversification, appraisal and continued evaluation of the street trees are some of the goals of the street tree inventory. The ultimate goal of the street tree inventory is to continue to influence decision-makers of the value of supporting a healthy urban forest.

Arbor Day in Fond du Lac is an annual event. A third-grade class is transported by city bus to

Lakeside Park for the planting of the Arbor Day tree, taught about the history of Arbor Day and given Arbor Day materials. Area businesses donate the Arbor Day tree and tree products for the children. Additionally, Fond du Lac's Tree City USA Award is presented by DNR at the Arbor Day celebration. Fond du Lac is proud to have been a Tree City USA recipient for the past 17 years.

The city of Fond du Lac will continue to provide its residents with a cost effective urban forestry program in the future. Utilizing urban forestry tools like a tree inventory and GIS help to quantify and justify the need for proper tree management. Dedicated staff and good public support have—and will continue—to make trees a mainstay in the city's infrastructure. ✿

2005 Wisconsin Urban Forestry Council Awards

Presented February 1, 2005, at the annual conference in Green Bay

The Project Partnership Award recognizes outstanding projects involving development of new urban forestry partnerships. This year's winner was a group of communities that banded together to provide an opportunity for ArborMaster training in northeast Wisconsin. The award was given to:

City of Appleton – Mike Michlig
Village of Ashwaubenon – Tim Bauknecht
Village of Howard – Chris Clark
City of Marinette – Todd LaPacz
City of Neenah – Chris Johnson
City of Oshkosh – Bill Sturm



Left to right: Dave Liska, Urban Forestry Council Chairman; Tim Bauknecht, Village of Ashwaubenon; Todd Lapacz, City of Marinette; Bill Sturm, City of Oshkosh; Chris Clark, Village of Howard; Chris Johnson, City of Neenah; and Mike Michlig, City of Appleton.

Photos by the Wisconsin Arborist Association

The Innovations in Urban Forestry Award is given in recognition of a community, individual, association or organization exhibiting outstanding innovations in the development and enhancement of their urban forestry projects or programs. The winners, listed below, were recognized for their efforts to resurrect the Dunbar Oak in Waukesha. The 300-year-old landmark tree in Bethesda Park, which died in 1991, was cloned and a new, 12-year-old oak was planted in its stead.

Dave Liska – Forester, City of Waukesha
Mona Bauer – Customer and Administrative Services Manager, City of Waukesha
Bill Reichenbach – Landscape Manager, Johnson's Nursery, Menomonee Falls



Left to right: Mona Bauer, City of Waukesha; Dave Liska, City of Waukesha; Bill Reichenbach, Johnson's Nursery, Menomonee Falls.

The Distinguished Service Award recognizes individuals for their outstanding contributions to urban forestry in Wisconsin. This year's winner, Elsworth "Dobber" Oilschlager, was chosen for his efforts in planning and maintaining the Port Edwards urban forest for over 40 years. Once or twice a year, he still tours the village to perform an inventory of tree plantings and removals, visits nurseries to hand select appropriate trees for boulevard plantings and supervises the village staff during the planting process. The urban forestry program in Port Edwards has been very successful, boasting low tree mortality rates and low budget. 🌳



Dave Liska, City of Waukesha; Marge Oilschlager; Elsworth "Dobber" Oilschlager.

Green Industry Day on the Hill Deemed a Success

This article is adapted from one submitted to "Green Side Up," monthly newsletter of the Wisconsin Green Industry Federation.

The Green Industry's Voice Was Heard!

Over 200 green industry business owners, workers, enthusiasts and educators gathered at the state capitol to make their voices heard on Tuesday, February 15. Green industry members had the opportunity to meet with their state assembly representatives, senators or their staff to discuss the impact the green industry has on the state's economy, along with the issues and challenges business owners face.

Participants met at the Inn on the Park. Event coordinator Brian Swingle welcomed the group and thanked them for their participation in the industry's first-ever Day on the Hill. Senator Ted Kanavas (R-33rd District) addressed the group Tuesday morning. Kanavas chairs the Senate Committee on Job Creation, Economic Development and Consumer Affairs and has first-hand knowledge of the industry, as his brother George owns a landscape company. Kanavas said he is excited about the growth of the green industry, he understands there are things that need to be done to help create a successful business environment and that their presence indicates the industry's concerns.

State Representative Mark Honadel (R-21st District) spoke briefly with the Day on the Hill attendees. Representative Honadel stressed the importance of speaking what's on your mind while visiting with legislators at the capitol. "We're here to serve," Honadel said. "If we hear from the people, something is likely to happen," he added. As a small business owner himself, Honadel said he knows firsthand what the struggle to remain successful entails.

State Agriculture Secretary Rod Nilsestuen also spoke to the group before heading to the capitol. Secretary Nilsestuen said he has an excellent working relationship with the green industry. He said it's important to make clear the breadth of the green industry and its impact on the economy. He said the Department of Agriculture is proud to have partnered on the Green Industry Economic Impact Survey.

The Green Industry Economic Impact Survey, completed in the spring of 2004, was the driving force behind the Day on the Hill. The survey results revealed the industry's astounding \$2.7 billion impact on the state's economy. The industry employs an impressive 43,000 people and encompass nearly 5000 businesses throughout the state. Those findings were brought to the legislators' attention during the visits.

Because both the Senate and the Assembly were in session that day, some participants met instead with

their legislators' staff. Also, a good number of legislators came out of their sessions and met with the group in the parlor or their offices. The staff members are the right hand of each legislator, as explained by Representative Honadel and Senator Kanavas. Issues discussed with legislators in the individual meetings ranged from fertilizer and pest control products, invasive species and pests, to immigration reform and health care costs.



A growing force at the capitol?

The participants assigned to meet with their legislators went to the capitol as a team. Each team assigned a leader to complete a report on the visit upon returning to the hotel for lunch and guest speakers. The reports will be assembled and shared with the associations participating in the Day on the Hill event. If a legislator or staff member requests any specific follow-up, this will ensure it is provided.

Guest speaker Martin Schreiber of Martin Schreiber and Associates spoke with the group after lunch. Schreiber spoke fondly of his days as governor and praised everyone for taking pride in their business and taking the time off to become involved in the Day on the Hill event. He expressed the importance of the industry letting its voice be heard at the capitol and applauded them for organizing the event.

University of Wisconsin-Madison, College of Agriculture and Life Sciences Dean Elton Aberle was the final speaker of the afternoon. Before Dean Aberle took the podium to speak, Brian Swingle presented him with a Friend of the Wisconsin Green Industry plaque expressing appreciation for all the support he has provided to our industry as the dean of CALS.

continued on page 8



Community Tree Profile:

Fringe Tree (*Chionanthus virginicus*)

by Laura G. Jull
Dept. of Horticulture
University of Wisconsin-Madison

Native To: Southeastern and south central US

Mature Height: 12–20' (smaller in Wisconsin)

Spread: 6–15'

Form: Small, multi-stemmed tree to large shrub; broad-spreading, open habit

Growth Rate: Slow to moderate

Foliage: Opposite to subopposite, simple, leathery, dark green leaves; narrow-elliptic to egg-shaped to oblong; 3–8" long, acute tip, entire margins, coarse textured with a waxy appearance. Leaf base extends down the petiole (decurent); each pair of leaves at right angles to the pair of leaves above or below it (decussate). Male plants tend to produce leaves that are longer and narrower than leaves on female plants. Leaves emerge in late May–early June.

Buds and Stems: Stems are flattened at the nodes with prominent, raised lenticels resembling a pretzel stick with raised leaf scars. Twigs may have loose, thin layers of epidermal tissue. Buds are white and brown, ovoid, 1/8" long, with keeled scales. Buds look like tiny pine cones.

Fall Color: Golden yellow

Flowers: Very showy, pure white, lacy, fragrant, 6–8" long, fringed, pendulous; loose panicle of flowers in late May. Flowers occur with the leaves on older wood. Flowers are dioecious to polygamodioecious (mostly dioecious but with a few perfect flowers). Flowers are showier on male plants but female plants do produce showy flowers.

Fruit: Egg-shaped, bluish-black, glaucous drupe in pendulous clusters, resembling small olives or grapes, in late summer to early fall on female plants only. Fruit is showy, sour tasting, but attracts birds. Not invasive.

Bark: Smooth, gray bark becoming ridged.

Site Requirements: Prefers a deep, fertile, moist, acidic, well-drained soil but is pH adaptable and



Photos by Laura Jull.

The broad, multi-stemmed form of an open-grown fringe tree.

tolerates full sun. Tolerant to air pollution and urban conditions.

Hardiness Zone: 4b-9a

Insect & Disease Problems: None serious

Suggested Applications: Fringe tree is an excellent, urban tolerant, small, multi-stemmed tree to large shrub that can be used in small places, underneath power lines or as a specimen plant in the landscape.

Limitations: Hard to find in nurseries, but some large nurseries are carrying this species. Slow growing and difficult to transplant; plant in spring. Propagated by seed, which needs double dormancy. Branches low to the ground, hence not suitable as a street tree. Very sensitive to juglone if planted near black walnuts or hickories.

Comments: Fringe tree is an underused, urban tolerant, small tree that is suitable for the urban and residential landscape. Its very showy, white, fringe-like flowers create a dramatic display in spring. Female plants planted near male plants produce pendulous, blue clusters of fruit that attract birds. Its soil and pH adaptability make this small tree suitable for planting in Wisconsin. Excellent alternative tree/large shrub species to use over flowering crabapples or other large, flowering shrubs.

continued on page 7



Close-up of the fringe tree flower.



Fringe tree in full flower used in a shrub bed.

Rain Gardens

continued from page 1

Rain gardens can be a fun and educational project for kids. In Madison, Centro Hispano teens are involved in a service project installing a rain garden at a local church. (Centro Hispano is a Hispanic support center where the students are involved in an after-school program.)

So What Exactly is a Rain Garden?

A rain garden is a sunken garden, typically four to six inches deep with a flat bottom. While any size does some good, rain gardens normally are about 1/3 the size of what is draining to it—usually a roof, yard or driveway.

Design can be wild or formal, depending on the plants selected and the desires of the property owner.

Benefits of Using Native Plants

Why not just let turf grass soak up storm water? According to John Stier, Associate Professor of Horticulture at UW–Madison, runoff and infiltration rates are comparable between turf grass and native plants. However, native plants can extract water from a deeper profile because their roots typically go twice as deep into the ground as the plants are tall, often to a depth of several feet; roots of mowed turf grass, on the other hand, are generally not more than 6–12" deep. In contrast to turf grass or the more traditional flower garden, native plants need no fertilizer and require little or no pesticides, reducing potential nutrient and pesticide loads in runoff and ground water. Native plants in the rain garden require maintenance similar to that of perennial gardens. Native plants are also beautiful individually and as a community.

Fringe tree

continued from page 6

Common Cultivars or Selections:

'Emerald Knight': male, fruitless; very long, dark green, glossy leaves; very showy in flower; new cultivar from Song Sparrow Nursery, Avalon, WI. ✻

References:

Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses, 5th ed. 1998, by M. A. Dirr, Stipes Publishing, Champaign, IL.

Native Trees for North American Landscapes, 2004, by G. Sternberg and J. Wilson. Timber Press, Portland, OR.

North American Landscape Trees, 1996, by A. L. Jacobson, Ten Speed Press, Berkeley, CA.

Plants that Merit Attention: Vol. 1 Trees, 1984, The Garden Club of America, J. M. Poor, (ed.), Timber Press, Portland, OR.



Photo by WDNR

Installing a rain garden, Madison, Wisconsin.

More help, including a manual on building a rain garden, is available at your UW–Extension or DNR office or on the Web at <http://dnr.wi.gov/org/water/wm/nps/rg/index.htm>. For a full description of features included on the DNR rain garden Web page and other rain garden resources turn to Urban Forestry Resources on p.15. ✻

What Damaged This Tree?



Photo by Mark Freberg & Eric Muecke, City of Green Bay

Was it insect or disease galls? Abnormal growth? Enlarged fruit? Squirrel apartments?

Turn to page 15 to find out . . .

<http://dnr.wi.gov/org/land/forestry/UF/>

Green Industry Day on the Hill Deemed a Success

continued from page 5

Dean Aberle articulated the importance of establishing connections with an industry whose activities relate directly to the programs in CALS. Dean Aberle said a specific example of that connection and organizational effort was the Green Industry Economic Impact Survey. He also talked about how the governor's budget will affect the UW system, in particular CALS, and that the reductions in staff funding mean fewer staff and increased tuition. He asked for the support of state funding for our educational system. He concluded by saying it has been a pleasure to see the partnership with campus and business and industry through his years as the dean of CALS.

WLF President Bill Vogel took a moment to express his thanks to those who coordinated the event. "Everyone on the Hill knew the green industry was here today," he said. He added that the one person who pulled everyone together, WLF Executive Director Brian Swingle, needed to be thanked. Swingle was honored with a standing ovation.

WLF and all the participating organizations wish to thank Carlin Sales Corporation, Reinders and the Southeast WLCA chapter for generously sponsoring buses to make the trip to Madison as convenient as possible. We also need to thank the many sponsors who provided financial support for the event.

WLF would like to send a sincere thank you to everyone who took the time to participate in the first-ever Green Industry Day on the Hill. The saying goes there is strength in numbers, and the green industry proved just that by banding together to make its voice heard at the capitol on February 15th. 🌿



Photo by the Wisconsin Green Industry Federation.

This group, like many others, took the opportunity to meet with their state representatives and senators on Tuesday, February 15, during the first-ever Green Industry Day on the Hill in Madison. This group got the chance to meet with State Representative Scott Gunderson's staff member Michael Bruhn. (L to R) Wade Hummer (Treescapes), Mike and Heather Schuster (Terra-Firma Landscape), Michael Bruhn and Jeff Millies (Wedgewood Golf Course).

Coming Events

July 14, 2005 – Wisconsin Arborist Association 2005 Summer Conference, Pierce Park, Appleton, WI. Contact Mark Freberg, 920-448-3379 or markfr@ci.green-bay.wi.us.

July 21, 2005 – Wisconsin Urban Forestry Council Meeting, Superior, WI. Contact Nathan Eisner, 608-264-8852 or nathan.eisner@dnr.state.wi.us.

August 6-10, 2005 – International Society of Arboriculture Annual Conference, Gaylord Opryland Hotel, Nashville, TN. Contact Jessica Marx, 888-472-8733 or jmarx@isa-arbor.com.

August 11, 2005 – Wisconsin Nursery Association Field Day, McKay Nursery, Waterloo, WI. Contact:

WNA Office 414-529-4705 or membership@toriiphillips.com.

September 18-21, 2005 – Society of Municipal Arborists Annual Conference, Windsor, Ontario, Canada. Contact SMA at 800-265-3633, UrbanForestry@prodigy.net or http://web.memberclicks.com/mcdatafiles/site/sma/Add_1.pdf.

September 19-21, 2005 – Building Greener Communities National Conference, Lied Lodge & Conference Center, Nebraska City, NE. Contact the National Arbor Day Foundation at 402-474-5655, www.arborday.org/programs/Conferences.html or conferences@arborday.org.



Linden Trees Have Their Own Wood Boring Insect

by Linda Williams, Forest Health Specialist
DNR Northeast Region

Linden borer (*Saperda vestita*) is a native longhorned beetle that attacks linden trees by boring under the bark as well as into the wood of the tree. These native beetles prefer trees that are under stress, but it's not clear how stressed the tree has to be to attract these insects. Sometimes it appears that they attack healthy trees. Trees of all sizes can be attacked. Adult beetles are an olive-green color with small black spots on their backs. Eggs are laid in the bark of linden trees. The eggs hatch and the larvae (immature beetles) bore into the tree and begin feeding just underneath the bark. The larval stage is the most damaging to trees since the larvae feed in the tree's cambium layer, where water and nutrients are transported. As the larvae grow older they can feed in the cambium and the wood of the tree. Larvae will bore deeper into the wood to pupate, just before turning into an adult beetle. Adults chew their way out of the tree, creating a perfectly round hole approximately the diameter of a pencil, or slightly larger.

Visible woodpecker damage will often be the first sign of insects under the bark. Peeling the bark at these areas should reveal more larvae. You might also notice branches that have poor foliage and seem to be declining, or branches that have died. Damage from the larvae boring underneath the bark can girdle portions of the tree, sometimes killing the whole tree. Many areas around the state report that damage from this insect occurs primarily in the lower portions of the trunk up to the first main branch, but I've also seen damage occur higher in the crowns of mature lindens.

Keeping your trees healthy and free of stress may help limit the amount of damage from linden borer, although as I stated previously these insects do sometimes attack trees that appear to be healthy. Chemical sprays applied to the bark can kill the young larvae as they hatch from the egg but will be ineffective against larvae that are already boring under the bark of the tree. Systemic pesticides—which the tree takes up and distributes throughout the cambium and crown of the tree—show some promise, although little research has been completed on how effective these pesticides are on linden borer. A new fact sheet about this pest is available on-line at <http://cecommerce.uwex.edu/pdfs/A3813.PDF>. ❁



Photos by Linda Williams, WDNR

Linden borer larvae and tunneling damage under the bark.



Linden borer adult beetles, female on left.

September 23, 2005 – Electrical Hazard Awareness Program (EHAP) Workshop, Milwaukee Area Technical College North Campus, Mequon, WI. Contact Mike Wendt, 262-238-2332 or towendts@execpc.com.

October 4-5, 2005 – Level II Tree Climbing Methods & Best Practices, Madison, WI. Contact ArborMasters at 860-429-5028 or Info@ArborMaster.com or www.arbormaster.com/home.htm.

October 6-7, 2005 – Level I Arborist Rigging Applications, Madison, WI. Contact ArborMasters at 860-429-5028 or Info@ArborMaster.com or www.arbormaster.com/home.htm.

November 17-18, 2005 – National Urban Forest Conference, The Westin–Charlotte, Charlotte, NC. Contact www.americanforests.org/conference/.

November 30, 2005 – Wisconsin Urban Forestry Council Meeting, Prairie Oak State Office Building, Madison, WI. Contact Nathan Eisner, 608-264-8852 or nathan.eisner@dnr.state.wi.us. ❁

If there is a meeting, conference, workshop or other event you would like listed here, please contact Dick Rideout at 608-267-0843 with the information.

Take the Ricky Quiz

by Ricky Lien, Urban Wildlife Specialist
Bureau of Wildlife Management

Every year I have the honor of attending the Wisconsin Ducks Unlimited state convention. This is usually one of the highlights of the year that I eagerly look forward to. It's always a positive experience to spend time with one of the most influential conservation groups in both Wisconsin and the country. Unfortunately, there is a price I have to pay—a presentation to the assembled convention. Now, I'm used to giving talks to diverse groups of people, so that's not a problem. What **IS** a problem is that the person who preceded me years ago in giving these talks, John Wetzel, had an overactive imagination that he used to devise talks that were both educational **and** fun.

What follows is a portion of what I presented to this year's convention. It's a wildlife quiz that I hope will teach you a few things **and** make you chuckle. (Okay, it's not strictly urban-related, but as far as I know, deer, ducks and purple loosestrife can still be found in cities.)

(Author's note: Read all the possible answers. Some of them I'm sort of proud of!)

The answers may be found on page 14.

1. What do DNR wildlife staff look at to determine a deer's age?
 - A. The number of antler points
 - B. Growth rings in an antler cross-section
 - C. Teeth
 - D. Birth certificates
2. Sea ducks are among the most accomplished divers of waterfowl species, with some reportedly diving:
 - A. 25 feet
 - B. 75 feet
 - C. 120 feet
 - D. 180 feet
3. In studies of pintails, females preferred males with:
 - A. Larger feet
 - B. Whiter breast feathers and more colorful wing feathers
 - C. Large checking accounts
4. The toll-free number established by the US Geological Survey for reporting waterfowl leg bands is:
 - A. 1-800-327-USGS
 - B. 1-800-EAT-DUCK
 - C. 1-800-327-BAND
 - D. 1-800-MAL-LARD
5. What famous animal was enrolled as a member of Ducks Unlimited?
 - A. Lassie
 - B. Seabiscuit
 - C. Flipper
 - D. SpongeBob
6. What percent of ducks harvested by US hunters originate on the prairies of Canada and the US?
 - A. 20%
 - B. 40%
 - C. 60%
 - D. 80%
7. Just one acre of the non-native aquatic plant, purple loosestrife, can produce how many seeds?
 - A. 24
 - B. 240,000
 - C. 2.4 million
 - D. 24 billion
8. A nickname for American wigeon is:
 - A. Baldpate
 - B. Robber duck
 - C. Both of the above
 - D. None of the above
9. What percent of the DNR Wildlife Management budget is spent on trying to manage and curtail chronic wasting disease (CWD)?
 - A. 5%
 - B. 10%
 - C. 15%
 - D. 20%
10. The largest North American waterfowl is the trumpeter swan. What's the smallest?
 - A. Wood duck
 - B. Green-winged teal
 - C. Mallard
 - D. Lesser scaup
11. Horicon National Wildlife Refuge was established largely because of what species?
 - A. Canada geese
 - B. Mallards
 - C. Redheads
 - D. Wood ducks
12. Who was the host of the 1974 Ducks Unlimited film, "Decisions?"
 - A. John Wayne
 - B. Jimmy Stewart
 - C. Ted Nugent
 - D. Mickey Mouse

continued on page 12

Organization Profile:

Trees For Tomorrow

by Kristina Skowronski
DNR Southeast Region

Did you ever have the opportunity as a child to get out and really explore the outdoors? For many of us, the answer is yes, and it's at least part of the reason we now work with trees. Perhaps your experiences were with a few good buddies or your parents, or took place in other unstructured ways. Now, a program in northern Wisconsin offers structured environmental education to a wide range of audiences in three states.

Trees For Tomorrow is a nonprofit specialty school that provides natural resources education to a variety of audiences, including students (elementary through high school), teachers, adults and senior citizens. The classes supplement students' regular education. Beginning in 1944 in Eagle River, the program now boasts 10 full-time natural resources staff, a fully equipped education center, dormitories, a dining hall and extensive outdoor classroom area.

Originally, the facility distributed free seedlings to enhance the future of the northwoods forests. Now,



Photos courtesy of Trees For Tomorrow

Trees For Tomorrow students participate in authentic forestry field activities such as forest measurements.



the school sells seedlings to help underwrite the cost of student tuition. TFT also produces a quarterly journal, *Northbound*, which is written by staff and considered a forum for natural resources issues and education. Archived copies can be accessed on their Web site.

Over 6000 students participate annually in TFT's education programs.

Studies may include anything from tree identification, orienteering, wildlife tracking via radio telemetry, water chemistry and groundwater studies, survival strategies, or forestry measurements. Students can even learn about tree planting and pruning. Schoolchildren return to their regular classrooms having learned that our natural resources can be sustained through conservation and proper management.

But wait, there's more! Adults, you too can participate in Trees For Tomorrow's education programs. TFT offers many classes for the adult student, including snowshoe weaving, song writing, nature photography, rustic rocking- and willow-chair making, and quilting, to name a few. Trees For Tomorrow also offers getaways for those who are looking for a longer trip with a little structure and plenty of outdoor time. These excursions include a snowshoe course where you build snowshoes and then use them on naturalist guided walks, cross country skiing, and a birding trip guided by naturalists both on land and on water.

For more information on costs and educational programs, the *Northbound* journal or TFT membership, please check out Trees For Tomorrow's Web site at www.TreesForTomorrow.com/. 🍂



Tree identification is a popular class at Trees For Tomorrow, laying the foundation for in-depth forestry studies.

Tree Cities for 2004

(Save the date for next year's Tree City USA banquet. See page 15 for details.)

Adams	Delavan	Greenville, town	Marion	Oconomowoc	Sun Prairie
Albany	Denmark	(Outagamie)	Marshall	Oconto	Superior
Algoma	DePere	Hales Corners	Marshfield	Onalaska	Theresa
Allouez	Dodgeville	Hartford	Medford	Oshkosh	Thorp
Amherst	Dresser	Hillsboro	Menasha	Paddock Lake	Tomahawk
Antigo	Eau Claire	Hobart	Menominee,	Phillips	Two Rivers
Appleton	Edgar	Horicon	town	Pittsville	Verona
Ashland	Elkhart Lake	Howard	(Menominee)	Plover	Waterford
Ashwaubenon	Elm Grove	Jackson	Menomonee	Plymouth	Waterford, town
Baraboo	Evansville	Janesville	Falls	Port Washing-	(Racine)
Bayfield	Fitchburg	Jefferson	Menomonie	ton	Waterloo
Beaver Dam	Fond du Lac	Kaukauna	Mequon	Portage	Watertown
Bellevue	Fontana	Kenosha	Merrill	Rice Lake	Waukesha
Beloit	Fort Atkinson	Kewaunee	Middleton	Richland	Waunakee
Bloomer	Fort McCoy	Kimberly	Milwaukee	Center	Waupaca
Brillion	Fox Point	La Crosse	Monona	Ripon	Wausau
Brookfield	Franklin	Ladysmith	Monroe	Rosendale	Wautoma
Brown Deer	Fredonia	Lake Geneva	Monticello	Rothschild	Wauwatosa
Cambridge	Fremont	Lake Mills	Mount Horeb	Saukville	Wescott, town
Cedarburg	Germantown	Lawrence, town	Muskego	Shawano	(Shawano)
Chenequa	Gilman	(Brown)	Neenah	Sheboygan	West Allis
Chilton	Glendale	Little Chute	New Berlin	Sherwood	West Bend
Chippewa Falls	Grafton	Lodi	New Glarus	Shorewood	Weyauwega
Clinton	Grand Chute,	Madison	New Holstein	Shorewood	Whitefish Bay
Clintonville	town	Madison, town	New London	Hills	Whitewater
Combined Locks	(Outagamie)	(Dane)	North Fond du	Spooner	Williams Bay
Cottage Grove	Green Bay	Manitowoc	Lac	Stevens Point	Wisconsin
Cudahy	Greendale	Maple Bluff	Oak Creek	Stoughton	Rapids
Delafield	Greenfield	Marinette	Oakfield	Sturgeon Bay	

Take the Ricky Quiz

continued from page 10

13. What famous wildlife author and teacher was born near the Mississippi River in eastern Iowa?
 - A. Aldo Leopold
 - B. Rachel Carson
 - C. John James Audubon
 - D. Ricky Lien
14. Two bucks and four does were in Michigan's George Reserve (a deer-proof fenced area of 1150 acres) in 1928. How many deer were in this enclosed area in 1933?
 - A. <12
 - B. 112
 - C. >220
 - D. None, they couldn't survive confinement
15. What organization "gave birth" to Ducks Unlimited?
 - A. Raffles-R-Us
 - B. The Isaac Walton League
 - C. The Flyway Council
 - D. More Gamebirds in America
16. A zebra's color is
 - A. White with black stripes
 - B. Black with white stripes
17. What are the young of beaver called?
 - A. Kittens
 - B. Cubs
 - C. Pups
 - D. Beaverettes
18. What is Wisconsin's official state wildlife animal?
 - A. Canada goose
 - B. White-tailed deer
 - C. Badger
 - D. Dairy cows
19. What is Wisconsin's official state dog?
 - A. Black lab
 - B. Golden retriever
 - C. American water spaniel
 - D. Spuds McKenzie
20. In May 2002 a grass fire was begun on a DU project in Canada by a(n):
 - A. Arsonist
 - B. Overzealous DU Regional Director
 - C. Canada goose going down in flames

Answers to Ricky's Wildlife Quiz on page 14.

The Idea Exchange...

compiled by Olivia Witthun
DNR Northeast Region

One Million Trees Project

Essex County, Ontario, created a unique One Million Trees project in response to the emerald ash borer attack occurring there. The project includes both environmental and educational goals. To meet the environmental goals one million trees will be planted over the next ten years, and two nurseries will be built to focus on species diversity. Helping meet the educational goals will be a public awareness campaign headed by a new Web site. Additionally, career skills in horticulture and forestry will be taught to unemployed workers. Funding is being provided through a partnership of government, businesses and the private sector. Info: www.onemilliontrees.org.

Nonprofit Group Responsible for City Trees

Groundwork Concord, a community improvement organization in Concord, New Hampshire, has partnered with the city to assume planting responsibility for neighborhood street trees. They will assess proposed sites, order trees, mark underground utilities and deliver trees to homeowners. This new partner-

ship will result in an increase in the number of trees planted each year from approximately 35 to 200. To keep costs low, bare-root stock will be planted instead of costlier balled-and-burlapped trees. Additionally, residents will contribute a co-pay for each tree requested.

From: *The Concord Monitor*, by Eric Moskowitz, March 10, 2005.

Use for Wood Chip Waste

To curb wood chip waste, a pilot program in Massachusetts began using the chips for sediment and erosion control instead of using traditional hay bales. The chips were put into a photodegradable mesh bag and sealed. The wood chips let water through better than hay while still filtering most of the sediment. There is also less chance the wood chips will contain the invasive seeds often found in hay bales. This pilot program was a great success. Time was saved by not driving to a dump site. Money was saved by not paying disposal fees and not having to buy bales of hay. Employment opportunities were created. And profits were earned from the additional sale of wood-chip bales. Part of the profit was given back to the community as beautification grants.

From: *Tree Care Industry*, Vol.16, No.4, April 2005

13



Does your community or organization have an idea, project or information that may be beneficial to others? Please let your regional urban forestry coordinator know. We will print as many of these as we can. If you see ideas you like here, give the contact person a call. They may be able to help you in your urban forestry efforts.

Research Notes:

How Urban Residents Rate and Rank the Benefits and Problems Associated with Urban Trees in Cities

by Virginia I. Lohr¹, Caroline H. Pearson-Mims²,
John Tarnai³ and Don A. Dillman⁴

Understanding the general public's opinion about trees is essential when looking for common ground to promote management. Nationwide, 83 percent of people strongly agree that trees are "important to your quality of life." The importance of shading and cooling rated highest as a reason to have trees. Helping people feel calmer, reducing smog and reducing noise were the next important rationale for having trees, respectively. Their ability to attract wildlife was least important on the list.

The two biggest problems associated with trees were that they can cause allergies and block store signs. Other perceived problems were they may fall on power lines, make it hard to detect criminal behavior and drip sap. Oddly enough, the cost associated with trees and the fact they can look ugly when not

maintained were the least important reasons to not have trees.

This information will be useful in recognizing the public's beliefs about trees. Meeting on common ground is the first step in advancing urban forestry plans.

¹*Professor, ²Research Technologist, Dept. of Hort. and Landscape Architecture, Wash. State Univ., ³Director ⁴Deputy Dir. for R & D, Social and Econ. Sci. Research Ctr, Wash. State Univ., *Corresponding author.

Financial support for this project was provided by the USDA Forest Service Urban and Community Forestry Program on the recommendation of the National Urban and Community Forestry Advisory Council.

Reference: *Journal of Arboriculture*, Vol. 30, No.1. January, 2004.

Raising Awareness—A Job for All of Us!

by Dave Liska
Council Chair

Hello! March Madness (no, not basketball) has passed as we dive further into the insanity that the spring season brings our way.

In my previous column, I reviewed the details and highlights of the Governor's Conference on Forestry held last fall. You will recall that two priorities were identified: awareness in the form of public education/information and urban forest assessment/quantification. Until we, as a profession and industry, create urban forestry enlightenment supported by quantifiable data, there will be no buy-in by the public or the elected decision-makers. We don't need to convince ourselves—that's like preaching to the choir. The Urban Forestry Council's day at the capitol in 2003 and the Green Industry's Day on the Hill are good starts in this direction. However, what is additionally required is a grass roots effort where all practitioners of urban forestry act as ambassadors and stewards. This isn't the job of just a few! The task belongs to everyone. Mr. & Mrs. John Q. Public need to know "what's in it for me, why should I care?" City councils, boards, commissions, state senators and legislators need to know and comprehend why urban forestry is vital to the environmental, ecological, economic, social, psychological and aesthetic well-being of the communities where their constituencies reside.

Urban trees all too often are taken for granted. Their valuable benefits, although manifold, are subtle. This makes the task of creating awareness all the more challenging.

In addition, please consider the following quotation excerpted from *American Forests*, spring 2005, in the "Letters" section. The author, a retired professional forester from California, concludes his letter with this statement: "Urban Forestry is not forestry; it is park management or arboriculture, which have no economic value—only costs to the taxpayer."

This brings to mind the comic strip "Pogo," where Pogo is quoted, "We have seen the enemy and he is us!" In fairness to this gentleman, one needs to read his entire letter. However, it only proves my point that enlightenment is necessary across the entire forestry spectrum. The realization and recognition that urban forestry refers to all community trees, not just park and street trees, needs to be communicated.

Fortunately, for those of us in Wisconsin, the process linking traditional forestry with urban forestry has already begun. The governor's conference provided the forum to identify linkages. Common ground was found in the areas of invasive exotic species, forest and natural area fragmentation, and forest assessment and sustainability.

We have started the process, we have a long way to go, we *all* need to participate.

Until next time... 🌿

Answers to Ricky's Wildlife Quiz (see page 10 for quiz).

1. C. Teeth
2. D. 180 feet
3. B. Whiter breast feathers and more colorful wing feathers
4. C. 1-800-327-BAND
5. B. Seabiscuit
6. D. 80% (The key in this question is that it asks about *US hunters*. Hunters in Wisconsin harvest a much smaller percentage of ducks from the prairies.)
7. D. 24 billion
8. C. Both of the above
9. D. 20%
10. B. Green-winged teal
11. C. Redheads
12. A. John Wayne
13. A. Aldo Leopold (If you answered D. Ricky Lien, bless you. Give yourself half a point. Unfortunately, while I was indeed born near the Mississippi River in eastern Iowa, I'm not that famous.)
14. C. >220 (And they replicated the experiment a number of years later with almost the exact same result!)
15. D. 'More Gamebirds in America'
16. A. White with black stripes
17. A. Kittens
18. B. White-tailed deer
19. C. American water spaniel
20. C. Canada goose going down in flames (Near as can be determined, a Canada goose flying over the project hit some overhead power lines. The goose ignited and fell into the dry grass.)

Give yourself one point for each correct answer. How did you do?

16-20 points – Congratulations!

11-15 points – Good job, but hit the books a little more.

6-10 points – Hmmm, too much partying?

0-5 points – Welcome to my world. 🌿

Rain Gardens

compiled by Cindy Casey
DNR West Central Region

Rain Garden Resources on the Web

An abundance of information about rain gardens is available on the **Department of Natural Resources Web site**.

Visit <http://dnr.wi.gov/org/water/wm/nps/rg/index.htm> and find:

- basic rain garden concepts
- a comprehensive how-to manual
- specific suggestions for small rain gardens
- lists of suitable plants, with descriptive profiles
- a virtual tour of Madison-area rain gardens
- background storm water information, including direct links to various DNR administrative rules
- ordering information for the Wisconsin Rain Garden Educator's Kit
- links to external resources, including publications, plant resources, examples and case studies, and a model weed ordinance
- other related information

The **City of Maplewood, Minnesota**, in the Twin Cities metro area has a history of rain garden projects going back nearly 10 years. The city now installs rain gardens when doing road reconstruction. In addition to rain garden facts, plant lists and a virtual tour, the city's Web site contains their specification for garden installation. Visit www.maplewoodmn.gov/office.com/ and navigate to City Departments – Public Works – Rainwater Gardens. 🌸

15



2006 Tree City USA Banquet Scheduled

The 2006 Tree City USA recognition banquet and workshop has been scheduled for Thursday, March 9, 2006, at Madison's elegant Monona Terrace Convention Center. If you are a Tree City USA, your mayor, community forester and a guest will be invited to attend the gala event to receive your award and learn about ways to support and manage your community trees. This happens only once every three years, so if you've been considering becoming a Tree City USA, 2005 is the year to take the plunge! Don't miss this opportunity to be recognized as a leader in Wisconsin community forestry. Tell your mayor to save the date and get your Tree City USA application in by December 31, 2005.

For more information on how to become a Tree City USA contact your regional urban forestry coordinator. Find their contact information at dnr.wi.gov/org/land/forestry/UF/staff/index.htm.

What Damaged This Tree?

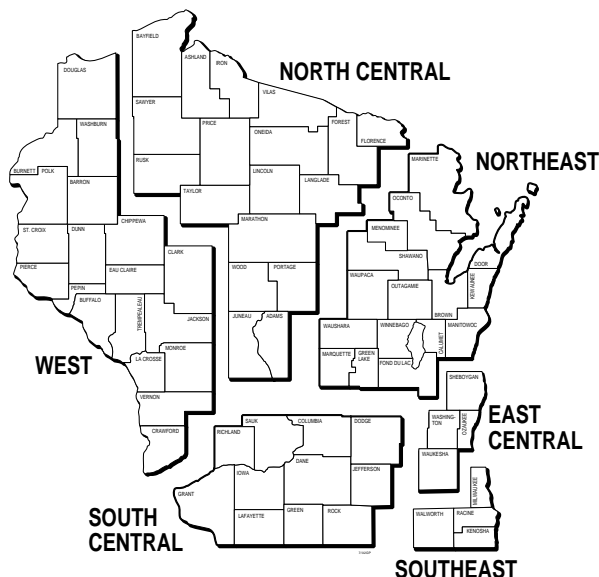


Photo by Mark Freberg & Eric Muecke, City of Green Bay

Answer: *Epidermophyton floccosum* (Athlete's Feet)
– about 35 pairs

Do you have pictures of tree damage others ought to know about? Send them to Kim Sebastian (address on page 16) and we'll print them here!

Wisconsin DNR Urban and Community Forestry Contacts



World Wide Web Site: www.dnr.state.wi.us/org/land/forestry/uf/

West

Cindy Casey
Regional Urban Forestry Coord.
1300 West Clairmont Ave.
Box 4001
Eau Claire, WI 54702
Phone: (715) 839-1606
Fax: (715) 839-6076
e-mail: Cynthia.Casey-Widstrand@dnr.state.wi.us

North Central

Don Kissinger
Regional Urban Forestry Coord.
5301 Rib Mountain Drive
Wausau, WI 54401
Phone: (715) 359-5793
Fax: (715) 355-5253
e-mail: Don.Kissinger@dnr.state.wi.us

South Central

Jeff Roe
Regional Urban Forestry Coord.
3911 Fish Hatchery Road
Fitchburg, WI 53711
Phone: (608) 275-3256
Fax: (608) 275-3236
e-mail: Jeffrey.Roe@dnr.state.wi.us

State Coordinator

Dick Rideout
State Urban Forestry Coord.
101 S Webster St
PO Box 7921
Madison WI 53707
Phone: (608) 267-0843
Fax: (608) 266-8576
e-mail: Richard.Rideout@dnr.state.wi.us

Northeast

Tracy Salisbury
Regional Urban Forestry Coord.
2984 Shawano Ave.
P.O. Box 10448
Green Bay, WI 54307-0448
Phone: (920) 662-5450
Fax: (920) 662-5413
e-mail: Tracy.Salisbury@dnr.state.wi.us

Southeast and East Central

Kim Sebastian
Regional Urban Forestry Coord.
2300 N. Martin Luther King Jr. Dr.
Milwaukee, WI 53212
Phone: (414) 263-8602
Fax: (414) 263-8661
e-mail: Kim.Sebastian@dnr.state.wi.us



P.O. Box 7921, Madison WI 53707

Address Service requested

Presorted Standard
U.S. Postage
Paid
Madison, WI
Permit 906